

## 4.2 Air Quality

The proposed activities under the Modified Project analyzed herein do not include any activity within Kern County, with the exception of one structure near Whirlwind Substation where aviation lighting has already been installed (see Figure 2.1-1h – Segment 10). As such, the air quality environmental setting, regulatory setting and impact approach focuses on Los Angeles and San Bernardino Counties.

### 4.2.1 Affected Environment

The setting discussion provided in the Final EIR and Final EIS Air Quality section (Section 3.3.2 and Section 3.3.3) remains generally valid for the Modified Project. A few changes to the regional setting, specifically within the South Coast Air Basin (SoCAB), have occurred since the Final EIR and Final EIS were published, including:

- The entire SoCAB has been redesignated by the California Air Resources Board (CARB) from attainment to nonattainment of the nitrogen dioxide (NO<sub>2</sub>) California Ambient Air Quality Standard (CAAQS).
- The entire SoCAB has been redesignated by the United States Environmental Protection Agency (USEPA) from severe-17 to extreme nonattainment of the Ozone (O<sub>3</sub>) National Ambient Air Quality Standard (NAAQS).
- The USEPA has enacted new primary 1-hour NO<sub>2</sub> and Sulfur Dioxide (SO<sub>2</sub>) NAAQS (0.100 ppm for NO<sub>2</sub> based on the 98th percentile of daily 1-hour maximum concentrations averaged over three years, and 0.075 ppm for SO<sub>2</sub> based on the 99th percentile of the daily 1-hour maximum concentrations averaged over three years). The USEPA has designated the entire SoCAB as Unclassifiable/Attainment for these new standards. However, the SoCAB is still identified as a Maintenance area for NO<sub>2</sub> due to its former nonattainment status in regards to the previous primary standard.

Baseline meteorological conditions presented in Final EIR and Final EIS, Section 3.3.2.1, were averaged over a minimum period of 30 years and remain valid. As discussed above, the attainment status for the SoCAB has changed since that presented in Final EIR and Final EIS Table 3.3-5. However, the existing air quality pollutant summary tables (Tables 3.3-6 through 3.3-11, 1997-2008 data) within Final EIR and Final EIS, Section 3.3.2.1, remain representative of pollutant levels within the SoCAB.

The discussion of sensitive receptors presented in Final EIR and Final EIS, Section 3.3.2.1, for TRTP segments requiring aviation lights and marker balls (refer to Section 2) remains generally valid. Notable changes for segments including Modified Project activities include:

- Within Segment 5, the planned Ritter Ranch housing development was not built. The Anaverde residential development was completed.
- Within Segment 8, the planned Pine Valley Estates residential development is now partially built and occupied.

### 4.2.2 Applicable Laws, Regulations, and Standards

There is a very limited set of potentially applicable regulations for Modified Project construction activities, and while these construction activities were not evaluated previously, they do not introduce new types of emissions sources that would have applicable regulations other than those already documented in Section 3.3.3 of the Final EIR and Final EIS. The following identifies whether there are any newly promulgated federal, State, or local regulations that were not in effect at the time of the Final EIR and Final EIS.

## **Federal**

No new federal regulations specific to the proposed construction emissions sources, or electric T/Ls, have been promulgated.

## **State**

No new State regulations specific to the proposed construction emissions sources, or electric T/Ls, have been promulgated. However, since publication of the Final EIR and Final EIS, CARB has implemented an off-road engine emission reduction program that indirectly affects the Project's emissions through the phasing in of equipment fleets with cleaner off-road engines. This regulation (California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449) provides target emission rates for PM and NOx emissions from owners of fleets of diesel-fueled off-road vehicles and applies to equipment fleets of three specific sizes, where the target emission rates are reduced over time (CARB, 2007). However, full enforcement of this regulation has been delayed (CARB, 2011).

## **Local**

South Coast Air Quality Management District (SCAQMD) has promulgated revisions to stationary internal combustion engines (Rule 1110.2) and architectural coating regulations (Rule 1113) that may impact the construction contractor during Project construction. However, the effect of these regulation revisions would be very limited for the construction activities proposed. Revisions have not been made to the SCAQMD fugitive dust control regulation (Rule 403) since 2005.

### **4.2.3 Impact Analysis Approach**

The impacts identified in this SEIR/SEIS are determined by comparing the impacts of the Approved Project, as disclosed in the Final EIR and Final EIS, to the impacts of the Approved Project with the implementation of the proposed modifications (i.e., Modified Project) (see Section 2.3). This analysis follows the Final EIR and Final EIS air quality analysis, with the exception of rewording criterion AIR8 and the addition of Criterion AIR9, both of which are required to maintain consistency with the current (2012) CEQA checklist. Criterion AIR 6, which is specific to the ANF, has also been removed based on clarification from the Forest Service Regional Office that the 2005 ANF Land Management Plan (Forest Plan) strategies are not considered mandatory at a project level. The analysis herein focuses on whether the proposed modifications would result in new significant impacts or substantially increase the severity of previously identified significant effects to air quality. As the Final EIR and Final EIS found construction emissions would exceed CEQA thresholds within the jurisdictions of the SCAQMD and Antelope Valley Air Quality Management District (AVAQMD), this SEIR/SEIS analysis is focused on the additional incremental emissions associated with construction and maintenance of the Project modifications.

#### **4.2.3.1 Criteria for Determining Impact Significance**

The air quality significance criteria were developed considering the CEQA significance criteria utilized by the local air quality districts in the Project area, approved CEQA air quality checklists, and considering other federal criteria. NEPA regulations do not provide specific air quality significance criteria, and the local air quality district CEQA significance criteria is more stringent than the air quality significance criteria generally used in NEPA documents (such as the Prevention of Significant Deterioration [PSD] 250 ton/year emission thresholds).

## Regional Air Quality Significance Criteria

CEQA allows for the significance criteria established by the applicable air quality management district or air pollution control district to be used to assess impacts of a project on air quality. The SCAQMD and AVAQMD have adopted regional thresholds of significance for construction activities and for project operations, as shown below in Table 4.2-1. AVAQMD adopted regional thresholds of significance for PM<sub>2.5</sub> since publication of the Final EIR and Final EIS in their 2011 updated California Environmental Quality Act (CEQA) and Federal Conformity Guidelines; these new regional PM<sub>2.5</sub> emissions thresholds have been added to Table 4.2-1. As a conservative approach, the most stringent of these standards in each jurisdiction would apply to the Modified Project.

<b>Table 4.2-1. Air Quality Regional Thresholds</b>				
Criteria Pollutant	AVAQMD		SCAQMD	
	Construction or Operation		Construction	Operation
	tons/year <sup>1</sup>	lbs/day	lbs/day	lbs/day
Carbon Monoxide (CO)	100	548	550	550
Oxides of Nitrogen (NO <sub>x</sub> )	25	137	100	55
Particulate Matter (PM <sub>10</sub> )	15	82	150	150
Fine Particulate Matter (PM <sub>2.5</sub> )	15	82	55	55
Oxides of Sulfur (SO <sub>x</sub> )	25	137	150	150
Volatile Organic Compounds (VOC)	25	137	75	55

Source: SCAQMD, 2012; and AVAQMD, 2011.

1 - The annual limit is no more restrictive than the daily limit (annual limit is 365 times the daily limit), so the daily limit will be used for impact determination within the AVAQMD jurisdiction.

## Localized Air Quality Significance Criteria

In addition to the thresholds provided in Table 4.2-1, the SCAQMD recommends additional localized significance thresholds (LSTs) for toxic air contaminants (TACs), odors, and ambient air quality. As discussed in Section 2.3, installation of aviation lights and marker ball would occur along several segments containing sensitive receptors within the SCAQMD. LST thresholds are presented in Table 4.2-2.

Within the SCAQMD jurisdiction, source receptor area (SRA) localized significance thresholds for on-site emissions have been updated since the Final EIR and Final EIS were approved, and are presented in Table 4.2-2 above. However, the LST emission thresholds by SRA used in Final EIR and Final EIS Table 3.3-15 remain unchanged and continue to be applicable to Modified Project construction activities within TRTP Segments 6, 7, 8, and 11 (traversing SRA's 8, 9, 10, 11, 15, and 33).

The LST thresholds for CO are too high (minimum value of 535 lbs/day) to be exceeded for any given single construction site, so there is no potential for localized CO impacts from Modified Project construction activities.

Table 4.2-2. Localized Significance Thresholds for the SCAQMD	
Criteria Pollutant	Toxic Air Contaminants (TACs) and Odor Thresholds
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq 10$ in 1 million Cancer Burden $> 0.5$ excess cancer cases (in areas $\geq 1$ in 1 million) Chronic & Acute Hazard Index $\geq 1.0$ (project increment)
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402
Ambient Air Quality for Criteria Pollutants <sup>1</sup>	
NO <sub>2</sub> 1-Hour Average Annual Average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (State) 0.03 ppm (State) and 0.0534 ppm (federal)
PM <sub>10</sub> – 24-Hour Average PM <sub>10</sub> – Annual Average	10.4 $\mu\text{g}/\text{m}^3$ (recommended for construction) <sup>2</sup> and 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$
PM <sub>2.5</sub> – 24-Hour Average	10.4 $\mu\text{g}/\text{m}^3$ (recommended for construction) <sup>2</sup> 2.5 $\mu\text{g}/\text{m}^3$ (operation)
CO 1-Hour Average 8-Hour Average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (State) and 35 ppm (federal) 9.0 ppm (State/federal)

Source: SCAQMD, 2012.

Notes: lbs/day = pounds per day; ppm = parts per million;  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter;  $\geq$  greater than or equal to

1 – Ambient air quality threshold for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.

2 – Ambient air quality threshold based on SCAQMD Rule 403.

The normal operating emissions will be comprised of inspection and maintenance activities that will not have emissions in any one location high enough to create a localized impact. Furthermore, Modified Project activities do not affect the assumed operation maintenance activities and associated air pollutant emissions. Therefore, only construction emissions are evaluated with respect to the SCAQMD LSTs, and only for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions.

Note that ozone is not included in Tables 4.2-1 and 4.2-2. Ozone is not directly emitted from stationary or mobile sources; rather it is formed as the result of chemical reactions in the atmosphere between directly emitted air pollutants, specifically oxides of nitrogen (NO<sub>x</sub>) and hydrocarbons (VOCs). Therefore, it cannot be directly regulated, unlike its precursors, NO<sub>x</sub> and VOCs which are regulated.

### Federal General Conformity Significance Criteria

In addition to the regional and local significance criteria, the General Conformity Rule applicability *de minimus* emission levels for the SoCAB (as shown in Final EIR and Final EIS Table 3.3-16) would apply to the proposed modifications located in federal jurisdiction and control that are in nonattainment of the NAAQS. As discussed in Section 2 (Table 2.1-1), federal jurisdictions subject to the Modified activities include both US Army Corps of Engineers (USACE) and National Forest System (NFS) lands. The Final EIR and Final EIS included a conformity determination for NO<sub>x</sub>, VOC, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub> emissions within the SoCAB air basin and NO<sub>x</sub> and VOC emissions within the AVAQMD (Final EIR and Final EIS, Table 3.3-21) on both USACE and NFS lands.

### Greenhouse Gas Significance Criteria

Greenhouse gases (GHG)/climate change is an evolving issue where new regulations and policies are being developed on a regular basis. Most of these regulations apply to stationary or mobile source

sectors, community planning requirements, and other specific GHG emissions sectors. Construction GHG emissions sources and electrical T/Ls are not currently the specific subject of such regulations. The Final EIR and Final EIS discuss the regulations and policies that indirectly apply to the TRTP and how the Project would conform to those regulations and policies.

No new federal regulations specific to installation of aviation lights, marker balls, or electric T/Ls, have been promulgated or proposed since the TRTP was approved. However, other major new federal GHG regulations, not identified in the Final EIR and Final EIS, have been promulgated or proposed such as the new PSD permitting requirements and GHG New Source Performance Standards (NSPS). These regulations do not apply to installation of aviation lights or marker balls, or the Approved Project.

No new State regulations specific to installation of aviation lights, marker balls, or electric T/Ls have been promulgated or implemented since the TRTP was approved. However, other new State regulations, not identified in the Final EIR and Final EIS, have been promulgated such as the new Carbon Dioxide (CO<sub>2</sub>) Cap and Trade regulation and the Sustainable Communities and Climate Protection Act (SB 375). These regulations do not apply to installation of aviation lights or marker balls, or the Approved Project.

The SCAQMD and AVAQMD have adopted GHG thresholds of significance for construction activities and project operation, and the AVAQMD thresholds have been adopted since publication of the Final EIR and Final EIS. These thresholds are presented in Table 4.2-3 and are applicable to the Modified Project. ~~There are no known new local GHG/climate change regulations or policies applicable to installation of aviation lights or marker balls or the Approved Project.~~

<b>Table 4.2-3. Greenhouse Gas Significance Thresholds</b>			
	AVAQMD		SCAQMD
	Construction or Operation		Construction or Operation
	tons/year <sup>1</sup>	lbs/day	Tons/year
Greenhouse Gases (CO <sub>2</sub> e) <sup>1</sup>	100,000	548,000	10,000

Source: SCAQMD, 2012; and AVAQMD, 2011.

1 – CO<sub>2</sub>e is carbon dioxide equivalent, where greenhouse gases have different global warming potentials related to carbon dioxide.

### Significance Criteria Summary

For this analysis both the updated CEQA checklist criterion and the significance thresholds discussed above were considered to create a list of significance criteria. After Final EIR and Final EIS publication, changes to GHG significance criteria have occurred. When compared to those previously evaluated in the Final EIR and Final EIS, the following incorporates a change to the language of Criterion AIR8, as well as an additional CEQA checklist criterion (AIR9) to further address the potential for conflicts with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Therefore, AIR8 and AIR9 differ from the significance criteria utilized in the Final EIR and Final EIS. Criterion AIR 6, specific to the ANF, has also been removed based on clarification from the Forest Service Regional Office that Forest Plan strategies are not considered mandatory at a project level. Additionally, Criterion AIR1, which included Kern County Air Pollution Control District (KCAPCD) regional criteria, has been revised to remove reference to KCAPCD since Modified Project activities do not occur within the KCAPCD jurisdiction. The revised significance criteria are listed below.

The Project may result in significant impacts if:

- Criterion AIR1: The Project would generate emissions of air pollutants that would exceed any SCAQMD or AVAQM regional air quality standard as defined in Table 4.2-1.
- Criterion AIR2: The Project would generate emissions of air pollutants that would exceed any SCAQMD localized significance threshold as defined in Table 4.2-2 and Final EIR and Final EIS Table 3.3-15.
- Criterion AIR3: The Project would generate toxic air contaminant emissions that would exceed SCAQMD risk thresholds as defined in Table 4.2-2.
- Criterion AIR4: The Project would result in non-compliance with the Federal General Conformity Rule (40 CFR Parts 6, 51, and 93) requirements.
- Criterion AIR5: The Project would expose a substantial number of people to objectionable odors.
- Criterion AIR7: The Project would be inconsistent with the current approved Air Quality Management Plans.
- Criterion AIR8: The Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Criterion AIR9: The Project would conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Project modification construction emissions, specifically the construction dust emissions, could also impact sensitive plant species and create temporary visual impacts; however, implementing mitigation as required to address these criteria will effectively mitigate air quality impacts on biological communities and visual resources.

#### **4.2.3.2 Applicant-Proposed Measures (APMs)**

The Applicant-Proposed Measures (APMs) included within Final EIR and Final EIS Table 3.3-17 remain applicable to the Modified Project. Many of the APMs do not provide definitive requirements, do not ensure measurable emission reductions, and are not enforceable as written. Hence, some of Final EIR and Final EIS APMs, as noted in Table 3.3-17, have been replaced and/or rewritten as mitigation measures. For example, APM AQ-1 is now a California regulatory requirement and so does not have to be provided as a measure.

#### **4.2.3.3 Impact Assessment Methodology**

The air quality impacts of the Modified Project are discussed below in Section 4.2.4 under subheadings corresponding to each of the significance criterion presented in Section 4.2.3.1. The analysis describes the impacts of the Modified Project related to air quality and, for each criterion, determines whether implementation of the Modified Project would result in significant impacts. The analysis only focuses on any changes in impacts from the Approved Project (as presented in the Final EIR and Final EIS) with the addition of the proposed modifications (i.e., Modified Project). Aviation lights, once installed, as well as engineering refinements to 21 towers (refer to Section 2.3) would have no effect on operational emissions presented in the Final EIR and Final EIS. Routine maintenance of these components would be limited to the visual inspections occurring as part of the Approved Project. Therefore, the analysis of the Modified Project's emissions is limited to construction activities and marker ball maintenance activities.

In evaluating the changes, the impact analysis responds to the following questions for each significant criteria discussion:

- Will the Project changes result in impacts not already identified in the Final EIR and Final EIS? If there are any new impacts, are they significant?
- Will the Project changes substantially increase the severity of any significant impacts identified in the Final EIR and Final EIS?
- Is there additional feasible mitigation available to reduce or avoid the significant impacts associated with the Project changes?

For the purposes of satisfying CEQA requirements, the significance of each impact is also identified according to the following classifications: Class I: Significant impact; cannot be mitigated to a level that is less than significant; Class II: Significant impact; can be mitigated to a level that is less than significant; Class III: Adverse impact; less than significant; and Class IV: Beneficial impact.

#### 4.2.4 Environmental Impacts and Mitigation Measures

##### Direct and Indirect Effects Analysis

##### Regional Emission Thresholds (Criterion AIR1)

***Impact AQ-1: Construction emissions would exceed the SCAQMD and/or AVAQMD regional emission thresholds.***

The installation of marker balls would require installation by helicopter or spacer cart, plus construction workers and support vehicles. As discussed in Section 2.3, these activities would be limited in duration, and helicopters activities would use approved staging areas. As further discussed in Section 2.3, the installation of aviation lights and the proposed engineering refinements to structures in Segment 8, Phase 3, would require similar equipment already used for transmission structure construction and would result in only a slight increase in construction time for structure erection. Pollutant emissions would vary from day to day depending on the level of activity, the specific operations, and the prevailing weather.

Maximum daily emissions from construction of the Project modifications were calculated and added to daily construction emissions of the Approved Project and a comparison of those emissions with the SCAQMD and AVAQMD significance criteria are presented in Table 4.2-43. The maximum daily construction emission calculations and assumptions are presented in Appendix B. ~~As noted in Table 4.2-3, helicopter use estimated for marker ball installation is conservative, providing for the installation of an additional 117 marker balls by helicopter (2,365 vs. 2,248). As such, the emissions presented in Table 4.2-3 more than cover the 36 additional helicopter trips necessary for installation of aviation lights (refer to Section 2.3.2).~~

Based on the data provided in Table 4.2-43, the incremental daily construction emissions from Modified Project activities would only slightly add to Approved Project's exceedences of Air District Regional planning thresholds for significance for NO<sub>x</sub>, VOC, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> in the SCAQMD and AVAQMD. Implementation of Final EIR and Final EIS mitigation measures (see Appendix C for full measure language), including Mitigation Measures AQ-1a through AQ-1j, would reduce construction impacts to air quality to the maximum degree feasible, but would not eliminate all significant impacts. As such, the Modified Project would not substantially increase the severity of air quality effects or change the determinations identified in the Final EIR and Final EIS. No new impacts would occur and no additional mitigation is required.

**Table 4.2-4 Maximum Daily Construction Emissions from Marker Balls (MB) and Tower Crew/Air District Regional Emission Threshold Comparison**

Jurisdiction		Emissions (lbs/day)					
		NOx	VOC	CO	PM10	PM2.5	SO <sub>2</sub>
SCAQMD	Final EIR and Final EIS Maximum Daily Emissions	1,465	333	1,315	574	188	10
	MB/Tower Crew Maximum Daily Emissions	44.82	19.42	31.39	49.70	10.44	0.22
	Total Maximum Daily Emissions	1,510	352	1,346	624	198	10
	Significance Threshold	100	75	550	150	55	150
	Exceeds (YES/NO)	YES	YES	YES	YES	YES	NO
AVAQMD	Final EIR and Final EIS Maximum Daily Emissions	1,669	405	1,506	365	138	12
	MB/Tower Crew Maximum Daily Emissions	44.82	19.42	31.39	49.70	10.44	0.22
	Total Maximum Daily Emissions	1,714	424	1,537	415	148	12
	Significance Threshold	137	137	548	82	82	137
	Exceeds (YES/NO)	YES	YES	YES	YES	YES	NO

Source: Appendix B (SCE, 2012b).

1 Assumes 2,365 marker balls installed. This number was approximated given the received and pending FAA recommendations as of July 2012. At that time, all pending FAA recommendations were assumed to require marking. This estimate is slightly higher than would be required for the current estimate of 2,248 marker balls, which is based on the FAA's final set of recommendations.

#### **Approved Project Mitigation Measures for Impact AQ-1**

**AQ-1a Implement Construction Fugitive Dust Control Plan.**

**AQ-1b Off-road Diesel-fueled Equipment Standards.**

**AQ-1c Limit Vehicle Traffic and Equipment Use.**

**AQ-1d Heavy Duty Diesel Haul Vehicle On-road Equipment Standards.**

**AQ-1e On-road Vehicles Standards.**

**AQ-1f Properly Maintain Mechanical Equipment.**

**AQ-1g Restrict Engine Idling to 5 Minutes.**

**AQ-1h Schedule Deliveries Outside of Peak Traffic Hours.**

**AQ-1i Off-road Gasoline-fueled Equipment Standards.**

**AQ-1j Reduction of Helicopter Emissions.**

#### **CEQA Significance Conclusion**

Nominal emissions of NOx, CO, VOC, PM10, and PM2.5 from Modified Project construction activities would only slightly increase the amount the Approved Project exceeds the SCAQMD and AVAQMD daily significance thresholds. Even after the implementation of all Final EIR and Final EIS



mitigation measures listed above, daily regional emissions from the Approved Project, when added to emissions from the Modified Project, would continue to cause significant and unavoidable impacts (Class I) in the SCAQMD and AVAQMD jurisdictions. ~~The nominal increase to NO<sub>x</sub>, CO, VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from the Modified Project construction activities, even after implementation of all Final EIR and Final EIS mitigation measures listed above, will remain above the SCAQMD and AVAQMD daily significance thresholds (except for PM<sub>2.5</sub> where there is no threshold recommended by AVAQMD). Therefore, the daily regional emissions from the Modified Project would continue to cause significant and unavoidable impacts (Class I) in the SCAQMD and AVAQMD jurisdictions. However, the implementation of the Modified Project would not result in new significant impacts or substantially increase the severity of impacts previously identified in the Final EIR and Final EIS related to exceedances of regional emission thresholds.~~

***Impact AQ-2: Operating emissions would exceed the SCAQMD and/or AVAQMD regional emission thresholds.***

As discussed earlier, once installed, maintenance of aviation lighting would be conducted concurrently with annual T/L inspections and would not result in an increase in operational emissions from those presented in the Final EIR and Final EIS. Additionally, maintenance of structures within Segment 8 receiving proposed engineering refinements would occur identical to that evaluated in the Final EIR and Final EIS. Emissions caused directly by operation, maintenance, and inspection of the Approved Project are presented in Final EIR and Final EIS Table 3.3-19 (Alternative 2 Operating Emission/Air District Regional Emission Threshold Comparison).

Marker balls are expected to last from 10 to 25 years (refer to Section 2.3.3, Maintenance of Marker Balls and Lighting); therefore, during the 50-year lifespan of the Approved Project, marker balls replacement may occur up to four times. It is expected that marker ball replacement could occur continuously (on an as-needed basis) subsequent to the first 10 to 25 years. As such, emission estimates from marker ball replacement are evaluated on a worst-case daily basis.

It is assumed that marker ball replacement would occur utilizing the same method as initial installation, which for the majority of the marker balls would occur by helicopter. During initial installation, up to 20 marker balls would be installed per day (SCE, 2012b). Because marker balls would likely fade or deteriorate at a similar pace along adjacent spans, it is assumed that up to 20 marker balls would be replaced at a time as a worst-case scenario for maintenance. Worst-case daily emissions generated during marker ball replacement are presented in Table 4.2-54. Because these emissions would not be generated until 10 to 25 years after initial marker ball installation, the emission estimates presented in Table 4.2-54 do not account for any helicopter engine improvements or changes to construction techniques that may reduce the estimated daily emissions.

<b>Table 4.2-5. Maximum Daily Marker Ball Replacement Emissions (lbs/day)</b>					
NO <sub>x</sub>	VOC	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>
43.63	19.18	29.55	47.25	9.98	0.22

Source: Appendix B (SCE, 2012b).

The addition of the daily emissions presented in Table 4.2-54 to those presented in Final EIR and Final EIS Table 3.3-19 would exceed SCAQMD thresholds for NO<sub>x</sub> and AVAQMD thresholds for PM<sub>10</sub> shown in Table 4.2-1. ~~As shown, the addition of the daily emissions presented in Table 4.2-4 to those presented in Final EIR and Final EIS Table 3.3-19 would exceed SCAQMD thresholds for NO<sub>x</sub> and AVAQMD thresholds for PM<sub>10</sub>.~~ However, marker ball replacements would be determined by and conducted after the annual inspection activities; therefore, it is assumed that marker ball replacement would not occur on the same day or within the same jurisdiction as Approved Project's operation, maintenance, and inspection activities. As such, daily operational emissions would either be from those sources presented in Table 4.2-54 (for marker ball replacement) or those presented in Final EIR and Final EIS Table 3.3-19. Therefore, when marker ball replacement emissions are compared to the daily emission thresholds utilized in Final EIR and Final EIS Table 3.3-19, no exceedances of SCAQMD or AVAQMD daily thresholds would occur.

#### ***CEQA Significance Conclusion***

The Modified Project's direct operations and maintenance (marker ball replacement) emissions do not exceed applicable SCAQMD and AVAQMD thresholds and would have a less-than-significant impact (Class III). Additionally, the Approved Project's transmission of renewable energy is assumed to help facilitate an indirect and overall cumulative emissions decrease. Therefore, the operations and maintenance (marker ball replacement) of the Modified Project, would continue to provide a beneficial operating emissions impact (Class IV).

#### **SCAQMD Localized Significance Thresholds (Criterion AIR2)**

##### ***Impact AQ-3: Construction of the Project would expose sensitive receptors to substantial pollutant concentrations.***

Modified Project activities occurring within Segments 6, 7, 8, and 11 would traverse SCAQMD SRA's 8, 9, 10, 11, 15, and 33. Minor changes to residential receptors within Segment 8 occurring since publication of the Final EIR and Final EIS are discussed in Section 4.2.1, above. Most of the Modified Project construction sites within NFS lands of SRA 15 are remote; however, there are residences, schools, recreational areas, or other sensitive receptors located within identified SRA's proximate to Modified Project activities.

Final EIR and Final EIS Table 3.3-20 conducted an analysis of the Approved Project with applicable SCAQMD LST thresholds. As discussed in the Final EIR and Final EIS under Impact AQ-3, helicopter emissions were not included as they are not ground-level emissions, with the exception of the helicopter construction staging areas; however, helicopter staging areas were not separately evaluated as they are not known to be located within 500 meters of any sensitive receptors. Any ground level emissions from the Modified Project's increased use of helicopter staging areas would be much lower than the ground level emissions from tower construction activities that were evaluated in the Final EIR and Final EIS. Therefore, new ground level helicopter emissions would not change the localized impact findings of the Final EIR and Final EIS.

Ground level construction activities associated with the Modified Project (refer to Section 2.3) are expected to nominally increase construction emissions, as they would occur across a number of segments and at different times. Therefore, Modified Project construction activities would not significantly alter the SCAQMD LST threshold analysis presented in Final EIR and Final EIS Table

3.3-20. The mitigation measures for Impact AQ-1 (AQ-1a through AQ-1j) would mitigate the Modified Project construction emissions to the maximum feasible extent. Therefore, the Modified Project would not substantially increase the severity of air quality effects or change the determinations identified in the Final EIR and Final EIS. No new impacts would occur and no additional mitigation is required.

***CEQA Significance Conclusion***

Construction of the Modified Project would nominally increase overall emissions during construction but would not change the maximum localized emissions estimated in the Final EIR and Final EIS. The contribution of the Modified Project construction emissions to LST thresholds would be less-than-significant (Class III). However, ground-level construction activities of the Project would continue to have a significant and unavoidable impact (Class I) to local sensitive receptors that are located within 50 meters of a construction site as discussed in the Final EIR and Final EIS. Implementation of the Modified Project would not result in new significant impacts or substantially increase the severity of impacts previously identified in the Final EIR and Final EIS.

***Impact AQ-4: Operation of the Project would expose sensitive receptors to substantial pollutant concentrations.***

As discussed earlier, it is assumed that marker ball replacement would not occur on the same day or within the same jurisdiction as Approved Project operation, maintenance, and inspection activities. As such, daily operational emissions at any sensitive receptor location would either be those presented in Table 4.2-54 (for marker ball replacement) or those presented in Final EIR and Final EIS Table 3.3-19. Furthermore, as marker ball replacement would occur at the rate of 20 per day (worst-case scenario), any sensitive receptor located near a T/L span with marker balls requiring replacement would be subject to very infrequent periods of brief emissions. Additionally, operational activities, such as the line inspection, road maintenance, and marker ball replacement would occur over a large area that covers the extent of the TRTP T/L, such that a substantial amount of normal operating emissions would not occur in any single location in quantities that could approach the SCAQMD LST thresholds.

***CEQA Significance Conclusion***

Operations and maintenance of the Modified Project would not cause localized emissions above the SCAQMD LST thresholds; therefore, a less-than-significant impact (Class III) to local sensitive receptors would occur.

**Air Toxic Contaminant Emissions (Criterion AIR3)**

***Impact AQ-5: Construction or operation of the Project would generate toxic air contaminant emissions that would exceed SCAQMD risk thresholds.***

As discussed earlier under Impact AQ-1 and as shown in Table 4.2-43, the Modified Project would result in a nominal increase in construction emissions evaluated in the Final EIR and Final EIS. As discussed in Section 2.3, the Modified Project construction activities would occur within a number of segments and helicopter activities would utilize approved helicopter support zones, which would not result in large quantities of emissions at any one location. Therefore, the risk from Modified Project construction at any given receptor area would be well below the SCAQMD significance thresholds. Furthermore, the Modified Project would have no impact to operational emissions evaluated in the Final EIR and Final EIS. Operation emissions of TACs are negligible, and as noted in Impacts AQ-2

and AQ-4, daily operational emissions would either be from those sources presented in Table 4.2-4 (for marker ball replacement) or those presented in Final EIR and Final EIS Table 3.3-19, which do not exceed any SCAQMD emission thresholds. As such, the Modified Project would not substantially increase the severity of air quality effects or change the determinations identified in the Final EIR and Final EIS. No new impacts would occur and no additional mitigation is required.

#### ***CEQA Significance Conclusion***

TAC emissions of the Modified Project would not exceed SCAQMD risk thresholds, therefore resulting in less-than-significant (Class III) health risk impacts. Therefore, implementation of the Modified Project would not result in new significant impacts or substantially increase the severity of impacts previously identified in the Final EIR and Final EIS.

#### **Federal General Conformity Rule (Criterion AIR4)**

##### ***Impact AQ-6: The Project would not conform to Federal General Conformity Rules.***

Table 4.2-65 provides a comparison of the Modified Project construction emissions on NFS lands for 2013-2015 with respect to the General Conformity *de minimis* thresholds evaluated for the Approved Project. By comparison, Modified Project activities occurring on USACE jurisdictions are minimal when compared to those proposed on NFS lands (installation of approximately 77 marker balls on USACE lands versus approximately 1,099 on NFS lands [Conservatively assumes all marker balls within the ANF fall on NFS lands]). Therefore, due to the nominal amount of emissions on USACE land from the Modified Project, no conformity analysis is provided as emissions would be substantially below the SoCAB General Conformity *de minimis* threshold.

As shown in Table 4.2-65, the nominal increase in construction emissions on NFS lands from the Modified Project would not exceed the General Conformity applicability thresholds. However, when combined with the Approved Project's emissions these emissions would cause a small increase to the overall NFS lands emissions provided in Final EIR and Final EIS Table 3.3-25 (Alternative 6 Emissions/General Conformity Emissions Threshold Comparison), which were determined to exceed the SoCAB thresholds. Therefore, these emissions will need to be mitigated as necessary to comply with Mitigation Measure AQ-6. The Modified Project construction emissions estimate (Table 4.2-65) considers the implementation of Mitigation Measures AQ-1a, but are conservative as they do not fully consider implementation of Mitigation Measures AQ-1b through AQ-1j. General Conformity does not need to be reevaluated for this Project, because as noted in Section 93.157 of the regulation General Conformity it is "not required to be reevaluated if the agency has maintained a continuous program to implement the action; the determination has not lapsed as specified in paragraph (b) of this section; or any modification to the action does not result in an increase in emissions above the levels specified in § 93.153(b)". The Modified Project conforms to the aforementioned requirements.

The General Conformity analysis occurred prior to the most recent re-designation of the SoCAB ozone nonattainment area to extreme nonattainment. At the time of Final EIS and Final EIR approval, the SoCAB was designated as "severe" ozone nonattainment; therefore, the General Conformity analysis and the mitigation emissions trigger provided in Mitigation Measure AQ-6 are based on the General Conformity thresholds for severe ozone nonattainment, or 25 tons per year of NOx or VOC. However, to determine if the Project needs to be reevaluated per Section 93.157 of the General Conformity

regulation, Table 4.2-65 compares the increase in emissions to the current General Conformity thresholds of 10 tons per year for NO<sub>x</sub> and VOC.

<b>Table 4.2-6 Project Modifications - Emissions/General Conformity Emissions Threshold Comparison (tons/year)<sup>1</sup></b>						
Construction Year	NO <sub>x</sub>	VOC	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>
Angeles National Forest – 2013	0.64	0.28	0.44	0.70	0.15	0.00
Angeles National Forest – 2014	0.48	0.21	0.33	0.53	0.11	0.00
Angeles National Forest – 2015	0.21	0.09	0.14	0.23	0.05	0.00
SoCAB Applicability Trigger <sup>2,3</sup>	10 (25)	10 (25)	100	70	100	100
AVAQMD Applicability Trigger	100	100	--	--	--	--
Exceeds (YES/NO)	NO	NO	NO	NO	NO	NO

Source: Appendix B (SCE, 2012b).

1 - Assumes 591 marker balls installed in 2013, 439 in 2014, and 191 in 2014. Conservatively assumes 1,221 total marker balls on NFS lands (based on SCE's original estimate for marker balls within the ANF), which is higher than the current estimate of 1,029 (see Table 2.1-1). Also assumes installation of 8 aviation lights in 2014.

2 - NO<sub>x</sub> emission trigger as a PM<sub>2.5</sub> precursor is 100 tons/year.

3 - Value in parentheses represents General Conformity *de minimis* threshold evaluated for the Approved Project, if different than current threshold.

Addition of the annual emissions shown above in Table 4.2-65 to the annual emissions for the Approved Project shown in the Final EIR and Final EIS (Table 3.3-25) is problematic due to the substantial schedule changes that have occurred since completion of the Final EIR (October 2009) and Final EIS (September 2010). However, the maximum annual emissions values obtained by the addition of the worst-case annual emission shown in Table 4.2-65 to the worst-case annual emissions shown in Final EIR and Final EIS Table 3.3-25 would not change the findings for General Conformity made in the Final EIR and Final EIS. The findings continue to be that the NO<sub>x</sub> emissions exceed the applicability trigger within the SoCAB and that no other pollutants exceed these triggers in the SoCAB (SCAQMD jurisdiction) or the Mojave Desert Air Basin (AVAQMD jurisdiction). Therefore, the NO<sub>x</sub> emission from the Modified Project will need to be considered when complying with Mitigation Measure AQ-6, which requires offsets for the NO<sub>x</sub> emissions emitted due to work being performed on federal lands when those emissions are forecast to exceed 25 tons per year. When the NO<sub>x</sub> emissions are estimated to be emitted in amounts greater than 25 tons per year, the offsets that will need to be obtained will be for the entire amount of NO<sub>x</sub> not just the incremental amounts above 25 tons per year. Given the current construction schedule delays, it is ~~anticipated~~ possible that NO<sub>x</sub> emissions from work performed on federal lands will exceed the General Conformity applicability threshold of 25 tons during 2013, 2014, and 2015.

As discussed earlier, the Modified Project operating emissions consist of the eventual replacement of marker balls, and the minimal air pollutant emissions related to those actions would not change the findings for operational emissions evaluated in the Final EIR and Final EIS, which found that the Approved Project's operating maintenance emissions were negligible in comparison with the General Conformity applicability trigger levels.

#### **Approved Project Mitigation Measures for Impact AQ-6**

##### **AQ-6 General Conformity Emission Offset Mitigation.**

SCE has several options for obtaining emission offset mitigation, including:

- Traditional NO<sub>x</sub> emission reduction credits (ERCs) that are in units of lbs/day, where 1 lb/day equals 365 lbs/year. These credits can now be subdivided into short-term yearly credits for purchase. These credits are available at market-based prices.
- Reclaim Trading Credits (RTCs) that are in units of lbs and are year specific.
- Creation of new emission reduction credits, such as mobile source emission reduction credits (MSERCs), where considered enforceable by USEPA for purposes of General Conformity offsets, through methods such as the SCAQMD Regulation XVI Mobile Source Offset Programs or other methods similar to existing stationary source control programs such as the Carl Moyer Program.

While there are many options to obtain the necessary offset credits to fully offset the Project's NO<sub>x</sub> emissions, it is likely that RTCs will make up the bulk of the credits obtained by SCE. As noted previously, as the federal Lead Agency the Forest Service is required to enforce compliance with all mitigation measures contained in the ROD. To comply with Mitigation Measure AQ-6, SCE has obtained 52.6 tons of NO<sub>x</sub> RTCs to offset the federal lands work emissions in 2013, and provided related mitigation measure compliance documentation to the Forest Service. If NO<sub>x</sub> emissions from work performed on federal lands exceed the General Conformity applicability threshold in 2014 or 2015, SCE will obtain additional NO<sub>x</sub> RTCs as required by Mitigation Measure AQ-6. ~~It is expected that SCE will be required to obtain additional NO<sub>x</sub> RTCs for 2014 and 2015, based on the current construction schedule for work to be performed on federal lands.~~

#### **CEQA Significance Conclusion**

Modified Project annual construction emissions on NFS lands would be below the General Conformity *de minimis* thresholds, as shown in Table 4.2-65. However, the Modified Project would add to the NO<sub>x</sub> emissions determined to exceed the SoCAB thresholds as shown in the Final EIR and Final EIS Table 3.3-25. Therefore, these emissions will need to be mitigated as necessary to comply with Mitigation Measure AQ-6. Therefore, the Modified Project would have a less-than-significant impact after mitigation (Class II). The Modified Project would not result in new significant impacts or substantially increase the severity of impacts previously identified in the Final EIR and Final EIS related to General Conformity.

#### **Odors (Criterion AIR5)**

##### ***Impact AQ-7: The Project would create objectionable odors.***

Modified Project construction and operation would require equipment and methods similar to those already considered in the Final EIR and Final EIS and would only result in a slight increase to total use of equipment and overall construction time. Specifically, Modified Project construction and operation would only have the potential to nominally increase potential minor odor sources from equipment exhaust. These odors would be temporary and would not affect a substantial number of people. No mitigation measures for odor reduction are necessary for Project modification.

#### **CEQA Significance Conclusion**

The odor impacts from Modified Project construction and operation would be less-than-significant (Class III). Therefore, the Modified Project would not result in new significant impacts or substantially increase the severity of impacts previously identified in the Final EIR and Final EIS.

## Conformance with Applicable Air Quality Management Plans (Criterion AIR7)

### ***Impact AQ-9: The Project would not conform with applicable Air Quality Management Plans.***

The Modified Project would be constructed in compliance with applicable federal, State, and local requirements. Additionally, Final EIR and Final EIS mitigation measures (AQ-1a through AQ-1j) were developed after consulting with AQMD personnel to confirm these measures would be consistent with SCAQMD and AVAQMD approved Air Quality Management Plans (AQMPs). The mitigation measures specifically required to comply with the SCAQMD AQMPs proposed emission reduction measures are as follows: AQ-1a, AQ-1b, and AQ-1d. Mitigation measures AQ-1a through AQ-1j would be implemented as part of the Modified Project.

As discussed under Impact AQ-2, daily operational emissions would either be from those sources presented in Table 4.2-54 (for marker ball replacement) or those presented in Final EIR and Final EIS Table 3.3-19. As no exceedances of SCAQMD or AVAQMD daily thresholds would occur, the Modified Project would have no impact to operational emissions evaluated in the Final EIR and Final EIS, which were found to be consistent with all applicable and approved air quality plans.

### ***CEQA Significance Conclusion***

After mitigation, Modified Project activities would be consistent with the currently approved SCAQMD AQMPs and would have a less-than-significant impact (Class II). Therefore, the Modified Project would not result in new significant impacts or substantially increase the severity of impacts previously identified in the Final EIR and Final EIS.

## Climate Change Impacts (Criteria AIR8 and AIR9)

### ***Impact AQ-10: Emissions would contribute to climate change.***

Modified Project construction activities would cause short-term GHG emissions. However, as discussed under Impact AQ-1 ~~and shown in Table 4.2-3,~~ the incremental daily construction emissions from the Modified Project ~~would only slightly add to~~ would be nominal when compared to the GHG emissions estimated for construction activities provided in Final EIR and Final EIS Table 3.3-22. These temporary GHG emissions would be more than offset by the Project's provision of greater renewable energy transmission and improved transmission effectiveness and efficiency. As further discussed under Impact AQ-2, daily operational emissions would either be from those sources presented in Table 4.2-54 (for marker ball replacement) or those presented in Final EIR and Final EIS Table 3.3-19. As no exceedances of SCAQMD or AVAQMD daily thresholds would occur, the Modified Project would have no impact to operational emissions evaluated in the Final EIR and Final EIS for GHG, and as presented in Final EIR and Final EIS Table 3.3-23.

### ***CEQA Significance Conclusion***

The Project would create a substantial indirect emission decrease that, considering the small incremental increase in GHG emissions from the Modified Project's construction, would continue to create an overall GHG emissions decrease over the Project's life. Additionally, the Project's purpose would implement key strategies for mitigating climate change proposed by the California Energy Commission and the Intergovernmental Panel on Climate Change to improve transmission and increase renewable energy use. Therefore, the Modified Project would continue to provide a beneficial GHG emissions impact (Class IV).

***Impact AQ-11 (NEW): Emissions would conflict with an applicable GHG reduction plan, policy or regulation.***

As a renewable energy transmission distribution project, operation of the TRTP, as modified, would enable a portion of the renewable portfolio that is mandated for California and reflected in the CARB AB32 Scoping Plan, partially satisfying the goals of the California Renewable Energy Programs (as described in Final EIR and Final EIS Section 3.3). Additionally, the emission reductions enabled by the Project would help reach the AB32 emission reduction goals for the electricity generation sector.

***CEQA Significance Conclusion***

The Modified Project would continue to conform to applicable plans, policies, and regulations related to GHG emission reductions and would have a less-than-significant impact (Class III). Therefore, implementation of the Modified Project would not result in new significant impacts or substantially increase the severity of impacts previously identified in the Final EIR and Final EIS.

## **4.2.5 Cumulative Effects Analysis**

### **Geographic Extent**

For Air Quality, the potential geographic extent of the cumulative impact area for the Modified Project covers the SoCAB air basin, Los Angeles County, and the SCAQMD and AVAQMD air quality jurisdictions. As discussed in Section 4.2.4 (Environmental Impacts and Mitigation Measures), the Modified Project would not alter the operation, maintenance, and inspection emissions of the Approved Project, as presented in Final EIR and Final EIS Table 3.3-19. As shown, the Approved Project has very minor direct operating emissions and a net decrease considering direct and indirect emissions. Therefore, the cumulative impact discussion is focused on construction impacts.

As discussed in Table 2.1-1 Modified Project construction activities would occur within Segments 5, 6, 7, 8 and 11, which identifies the overall area of cumulative impacts. Construction impacts are localized and temporary in duration. The effect of downwind dispersion and the minimal amount of surface level helicopter emissions would reduce the potential for modified Project construction emissions to extend beyond areas outside of one mile. Therefore, only cumulative projects within one mile of Modified Project construction areas are considered projects that could combine with Modified Project construction emissions and cause cumulative impacts. Additionally, only projects that are scheduled concurrently in the same area as the Modified Project construction activities are considered as projects that could contribute to cumulative impacts.

### **Existing Cumulative Conditions**

The Modified Project cover two air quality jurisdictions that have varying pollutant attainment/nonattainment classifications, as provided in Final EIR and Final EIS Section 3.3 and as amended above in Section 4.2.1. Long-term trends to reduced emissions of most criteria pollutants have generally reduced criteria pollutant concentrations; however, those trends have flattened in recent years and over the past ten years only one significant positive change in attainment status has occurred (SoCAB attained State and Federal CO standards) in the two affected air management districts (SCAQMD and AVAQMD). Therefore, any increase in emissions of nonattainment pollutants and precursors would cause an adverse air quality impact.



## Reasonably Foreseeable Future Projects and Changes

Only those projects listed in Section 3, Figures 3.5-1a through 3.5-1c, that have been identified within one mile of Modified Project construction areas (Segments 5, 6, 7, 8 and 11) and that have the potential for temporally overlapping emissions with the Modified Project are considered potential cumulative projects. There are a number of projects listed in Section 3 and shown in Figures 3.5-1a through 3.5-1c that are within this area. However, the construction schedule of many of these projects is uncertain, so there is the potential that a number of these projects will not have construction periods coincident with that of the Modified Project.

## Cumulative Impact Analysis

As discussed, only new projects with construction emissions that would occur at the same time as Modified Project construction are considered as part of this cumulative impact analysis; existing emission sources are considered part of the existing ambient background cumulative condition. However, the construction schedules of many of these projects is uncertain, making it possible that construction would not occur coincident with and within one mile of Modified Project construction activities.

- **Construction emissions would exceed the SCAQMD and/or AVAQMD regional emission thresholds (Impact AQ-1).** Construction activities associated with the Modified Project would result in air emissions that exceed the SCAQMD and AVAQMD regional emission thresholds for selected pollutants (see Table 4.2-43). For cumulative assessment purposes, the potential existence of nearby concurrent cumulative project construction would only add to these significant emission totals. The effect of downwind dispersion and the minimal amount of surface level helicopter emissions will reduce the potential for Modified Project construction emissions to extend beyond areas outside of one mile. Therefore, only cumulative projects within one mile of Modified Project construction areas are considered projects that could combine with Modified Project construction emissions and cause cumulative impacts. The cumulative project list (Section 3, Figures 3.5-1a through 3.5-1c) identifies a number of projects located within one mile of Modified Project activities within SCAQMD jurisdiction. However, few if any cumulative projects are shown located within one mile of Modified Project activities in AVAQMD jurisdiction in Segment 5. Given the assumption that any of these projects could be constructed concurrently with the Modified Project in the SCAQMD and AVAQMD jurisdictions, the impacts of the Modified Project in combination with other projects would have cumulatively significant impacts in those jurisdictions. Therefore, the combined effect of construction emissions from the Modified Project and construction of other projects and/or operating emissions would be cumulatively significant at various times during construction (Class I). However, the marginal increase in emissions associated with the Modified Project activities does not substantially increase the severity of cumulative air quality effects or change the cumulative construction emission impact determination identified in the Final EIR and Final EIS.

The 2009 Station Fire (which occurred within the ANF and Segments 6 and 11) is included for evaluation as part of the cumulative scenario. This fire resulted in changes to environmental conditions, and was evaluated against the Approved Project within the 2010 Supplemental Draft EIS (Forest Service, 2010a). Due to the topography of the Station Fire burn area, ground mobilization for Modified Project activities within this area is assumed to represent a very small percentage of the total construction. As discussed within Section 4.2 (Air Quality) of the 2010 Supplemental Draft EIS, the post-fire soil conditions are expected to be temporary, so the active construction and associated helicopter propeller downwash within the Station Fire's perimeter should not increase substantially due to any remaining fine ash particulate associated with the 2009 Station Fire. Propeller downwash emissions at the helicopter staging areas and tower construction sites can be adequately mitigated through the appropriate application of soil binders (Mitigation Measure AQ-1a); and at the construction sites, where the helicopters do not land, the helicopters would remain at heights that to some extent limit propeller downwash fugitive dust emissions potential. While the Modified Project would increase helicopter use, the increased cumulative potential for propeller downwash disturbing Station Fire fine ash particulate is no greater than that presented within the 2010 Supplemental Draft EIS. Therefore, the marginal

increase in construction emissions and equipment used (as presented in Table 4.2-45) would not cumulatively increase as a result of the Station Fire.

- **Operating emissions would exceed the SCAQMD and/or AVAQMD regional emission thresholds (Impact AQ-2).** The Modified Project would not alter the operation, maintenance, and inspection emissions of the Approved Project, as presented in Final EIR and Final EIS Table 3.3-19. Because marker ball replacement would not occur on the same days as Approved Project operation, maintenance, and inspection activities, daily operational emissions would either be from those sources presented in Table 4.2-54 (for marker ball replacement) or those presented in Final EIR and Final EIS Table 3.3-19. As such, the Modified Project would not cumulatively have the potential to exceed SCAQMD or AVAQMD emission significance thresholds during operation. Therefore, the Modified Project would have a less-than-significant cumulative operational emission impacts (Class III). The Modified Project would not change the cumulative operational emission impact determination identified in the Final EIR and Final EIS.

As discussed above under Impact AQ-1, marker ball replacement within the Station Fire burn area is not expected to begin until 10 to 25 years after initial installation. At such time, it is unlikely that helicopter propeller downwash would substantially cumulatively contribute with any remaining fine ash particulate associated with the 2009 Station Fire.

- **Construction of the Project would expose sensitive receptors to substantial pollutant concentrations (Impact AQ-3).** Construction activities associated with the Modified Project would expose sensitive receptors in the populated areas along construction areas in the SCAQMD. The SCAQMD LST lookup tables used to determine Project significance do not apply to cumulative project evaluation; however, the significance criteria is based on downwind pollutant concentrations causing a new exceedance (NO<sub>x</sub> and CO) of an air quality standard, substantially increasing current exceedances (PM<sub>10</sub> and PM<sub>2.5</sub>) of an air quality standard, and these general criteria are applicable standards for localized impact cumulative project analysis. For the emissions of any two projects to have the potential for significant cumulative downwind concentrations, they must both be in close proximity to limit the downwind dispersion from one site to the other and generally one of the projects must be able to cause an air quality standard exceedance on its own (conservation of mass principles dictate that two exhaust plumes of stable criteria pollutants do not add concentration, they mix concentration with the plume of highest concentration being diluted by the plume with the lower concentration). Therefore, it can be assumed that the potential for cumulative impacts to sensitive receptors is the same as the Modified Project's impacts to sensitive receptors. The cumulative contribution of the Project modification construction and operational emissions to LST thresholds would be less-than-significant (Class III). However, ground level construction activities of the Approved Project, as modified, (i.e., Modified Project) would continue to have a significant and unavoidable cumulative impact (Class I) to local sensitive receptors that are located within 50 meters of a construction site. The Modified Project would not substantially increase the severity of cumulative localized air quality effects or change the cumulative construction emission localized impact determination identified in the Final EIR and Final EIS.

While the Modified Project would increase helicopter use, the increased cumulative potential for propeller downwash disturbing Station Fire fine ash particulate during Modified Project construction activities and cumulatively impacting sensitive receptors is no greater than that presented within the 2010 Supplemental Draft EIS (Forest Service, 2010a).

- **Operation of the Project would expose sensitive receptors to substantial pollutant concentrations (Impact AQ-4).** The Modified Project would not alter the operation, maintenance, and inspection emissions of the Approved Project, as presented in Final EIR and Final EIS Table 3.3-19. Because marker ball replacement would not occur on the same days as Approved Project operation, maintenance, and inspection activities, daily operational emissions would either be from those sources presented in Table 4.2-54 (for marker ball replacement) or those presented in Final EIR and Final EIS Table 3.3-19. As such, the Modified Project would not cumulatively have the potential to exceed SCAQMD or AVAQMD emission significance thresholds during operation. Furthermore, as marker ball replacement would occur at the rate of 20 per day, any sensitive receptor located near a T/L span would be subject to very infrequent periods of brief emissions. Therefore, Modified Project operation will have a less-than-significant cumulative localized impact to sensitive receptors (Class III). The Modified Project would not change the cumulative operational localized emission impact determination identified in the Final EIR and Final EIS.

While the Modified Project would increase helicopter use, the increased cumulative potential for propeller downwash disturbing Station Fire fine ash particulate during marker ball replacement and cumulatively impacting sensitive receptors is no greater than that presented within the 2010 Supplemental Draft EIS.

- **Construction or operation of the Project would generate toxic air contaminant emissions that would exceed SCAQMD risk thresholds (Impact AQ-5).** Construction activities associated with the Modified Project do not have large amounts of TAC emissions, are of short duration, and do not have significant emissions in any single area that could create a significant risk to local populations. Similarly, cumulative project construction within one mile of Modified Project activities would not be expected to have significant emissions of TACs, and would not have the potential to cumulatively exceed SCAQMD risk thresholds. Operation emissions of TACs are negligible, and as noted in Impacts AQ-2 and AQ-4, daily operational emissions would either be from those sources presented in Table 4.2-54 (for marker ball replacement) or those presented in Final EIR and Final EIS Table 3.3-19, which do not exceed any SCAQMD emission threshold. Given the temporary nature and low TAC emission level for the Modified Project and cumulative projects, cumulative health risk impacts would be less-than-significant (Class III). The Modified Project would not change the cumulative TAC emissions impact determination identified in the Final EIR and Final EIS.

While the Modified Project would increase helicopter use, the increased cumulative potential for propeller downwash disturbing Station Fire fine ash particulate during Modified Project construction or operations activities, and cumulatively generating TAC emissions that would exceed SCAQMD risk thresholds, is no greater than that presented within the 2010 Supplemental Draft EIS (Forest Service, 2010a).

- **The Project would not conform to Federal General Conformity Rules (Impact AQ-6).** This impact is strictly applicable to single project evaluation. Therefore, cumulative impacts do not apply (No Impact). The Station Fire does not alter this conclusion or affect the nature or magnitude of the Modified Project's contribution to this cumulative effect.
- **The Project would create objectionable odors (Impact AQ-7).** Modified Project construction equipment and operations may create temporary and mildly objectionable odors. Such odors would not significantly affect a substantial number of people. To have the potential to combine with odors from Modified Project construction activities, odor-generating activities from other current and proposed projects would have to occur concurrently, occur in very close proximity with the odor-generating activities of the Modified Project, and result in a cumulatively worse odor condition. Given the temporary nature and relative mildness of the Modified Project construction odors, odor impacts related to the Modified Project would be adverse but not cumulatively significant (Class III). The Modified Project would not change the cumulative odor impact determination identified in the Final EIR and Final EIS.
- **The Project would not conform with applicable Air Quality Management Plans (Impact AQ-9).** This impact is strictly applicable to single project evaluation. Therefore, cumulative impacts do not apply (No Impact).
- **Emissions would contribute to climate change (Impact AQ-10).** This impact is already evaluated in a globally cumulative context. Therefore, cumulative impacts do not apply (No Impact).
- **Emissions would conflict with an applicable GHG reduction plan, policy or regulation (Impact AQ-11).** This impact is already evaluated in a globally cumulative context. Therefore, cumulative impacts do not apply (No Impact).

### Mitigation to Reduce the Project's Contribution to Significant Cumulative Effects

There are no additional feasible mitigation measures that could be imposed on the Modified Project to further reduce its contribution to cumulative air quality effects. All feasible construction emission mitigation measures have been recommended to mitigate Impacts AQ-1 and AQ-6.

## 4.2.6 Comparison of Alternatives

This comparison of alternatives focuses on the differences between the Approved Project (No Project Modifications/No Action Alternative) and the changes that would result with implementation of the

Modified Project. Table 4.2-76 provides a side-by-side comparison, summarizing the analysis presented above in Sections 4.2.4 and 4.2.5.

<b>Table 4.2-7. Comparison of Alternatives – Air Quality</b>		
<b>Project Component / Impact</b>	<b>Approved Project <sup>1</sup> (No Project / No Action Alternative)</b>	<b>Modified Project</b>
Structures with Aviation Lights	0	90
T/L Spans with FAA Marker Balls	0	276
Total Marker Balls	0	2,248
Max. Helicopter Hours/Day	141	151
Helicopter Use – Working Hours <sup>1</sup>	13,971	14,799 (828 additional)
Total Helicopter Use (includes idle hours) <sup>2</sup>	15,317	16,500 (1,183 additional)
Potential for construction emissions to exceed the SCAQMD, AVAQMD, and/or KCAPCD regional emission thresholds	SCAQMD – NOx, VOC, CO, PM10, and PM2.5 thresholds exceeded. AVAQMD – NOx, VOC, CO, PM10, and PM2.5 thresholds exceeded. KCAPCD – PM10 threshold exceeded.	SCAQMD – Slightly increases exceedances of NOx, VOC, CO, PM10, and PM2.5. AVAQMD – Slightly increases exceedances of NOx, VOC, CO, PM10, and PM2.5. KCAPCD – No change.
Potential for construction or operation of the Project to generate emissions that exceed SCAQMD LST thresholds	Project construction has the potential to exceed SCAQMD LST thresholds for receptors located within 50 meters of a construction site. Project operation would not exceed SCAQMD LST thresholds.	Modified project construction and operation activities would not result in large quantities of emissions at any one location, nor would the emission overlap with other construction or operation activities, so emissions from the Modified Project construction and operation at any given receptor area would be well below SCAQMD LST thresholds and would not cause any additional threshold exceedances.
Potential for construction or operation of the Project to generate TAC emissions that exceed SCAQMD risk thresholds	Project covers large area, does not generate large quantities of emissions at any one site, and construction occurs over a limited period of time reducing long-term chronic exposures. Risk from Project construction and operation would not exceed SCAQMD significance thresholds.	Modified project activities would not result in large quantities of emissions at any one location and would occur over a very short time frame. The small incremental increase in the risk from Modified Project construction and operation at any given receptor area would remain well below SCAQMD significance thresholds and would not cause new threshold exceedances.
Conformance to Federal general Conformity Rules	General Conformity analysis required. South Coast Air Basin NOx threshold exceeded. Emission offset mitigation required to demonstrate conformity.	Nominal increase in construction emissions on NFS lands would not exceed the General Conformity applicability thresholds. Increase in emissions would contribute to overall Project exceedance of the South Coast Air Basin NOx threshold and will be mitigated by emissions offset.
Potential for emissions to contribute to climate change	Indirect impacts of enabling renewable energy use are beneficial and greater than the direct emissions from construction and operation of the Approved Project.	Nominal increase in short-term construction GHG emissions would continue to be offset by the Project's provision of greater renewable energy transmission and improved transmission effectiveness and efficiency.
Cumulative impacts to air quality	Construction emissions would result in significant and unavoidable cumulative contribution to exceeding SCAQMD, AVAQMD, and KCAPCD regional emission thresholds.	Nominal increase in construction emissions. Emissions would not substantially increase the severity of cumulative contribution to exceeding SCAQMD and AVAQMD regional emission thresholds.

1 – The Approved Project is based on the originally approved overhead design.

2 – Assumes 2,365 marker balls installed. This number was approximated given the received and pending FAA recommendations as of July 2012. At that time, all pending FAA recommendations were assumed to require marking. This estimate is slightly higher than would be required for the current estimate of 2,248 marker balls, which is based on the FAA's final set of recommendations (assumes aviation lighting for structure M68-T2 in Chino – Segment 8, Phase 3, where the FAA determination is pending).